

# The Public Health Journal

TORONTO, CANADA.

VOL. VII.

JULY, 1916

NO. 7

## ALCOHOL FROM THE PUBLIC HEALTH STANDPOINT

*Read at the Section of State Medicine, Academy of Medicine,  
Mar. 30, 1916, by J. W. S. McCullough, M.D., D.P.H.*

**P**OVERTY is one of the great causes of the slow advance of Public Health.

The other is ignorance. There are grades of poverty. Any person is poor who has less to spend than is common in the circle in which he moves; but there is a grade far below this which might be designated misery or destitution, in which the very necessities of life are wanting. This is the kind of poverty that hinders Public Health.

There is a misconception among many people to the effect that this dire poverty, misery or destitution, whichever one likes to call it, is largely the result of drink. It is not directly the result of drink or of any single cause. Poverty is the result of a combination of many causes of which sickness is the greatest one. Sickness is said to account for one-third of the world's poverty.

The second great cause is premature death of the breadwinner. The third cause is the infirmity of old age. The fourth, imbecility, lunacy or congenital feeble-mindedness, and finally, incapacity or unwillingness to work on the part of those able to do so.

Those who have most experience in Public Health work are convinced that just as poverty has much to do with retardation of public health work, so has individual and national prosperity to do with improvement along the same lines. Increased wages means better homes, better food and better clothing, all of which conduce to better health and comfort of the individual. Dr. Gorgas recites as a typical example of this truth that one of

the chief reasons why his work in the Panama region was so successful was because the workmen there were paid the highest wages of any in America.

But what has alcohol to do with poverty or its causes? It has a very great deal to do with some of the factors which induce poverty, and is more or less concerned with each one of the five already mentioned.

Take sickness and premature death. Alcohol is very largely used by all classes of the community. Is it beneficial or otherwise? Its physiological action upon the human body is well known. It is an irritant poison. When taken into the body it lessens both mental and muscular efficiency, causes waste of heat, interferes with digestion, increases the heart's action, raises blood pressure and disorganizes the nerve centres. Its temporary effect in moderate quantities is that of a stimulant and this, practically its claim of value, is discounted away and beyond measure by the damage it does. Its more remote effects are seen in the well-known disorders of heart, liver and kidneys which follow its continued use. The drinker is a bad subject of sickness. The mortality from pneumonia and Bright's disease in such persons is extremely large. The surgeon dreads an operation on an alcoholic. The drinking man is more subject to accident and fatal injury than a sober one, and no one wants him in a situation such as railway or steamboat employe or other position where human life may be endangered by his irregularities. The use of alcohol as a medicine has large-

ly gone out of practice. I venture to say that it is not used at the present time to half the extent it was twenty-five years ago. Take a single disease for example. Twenty-five years ago almost everyone prescribed whiskey for pulmonary consumption. Now it is known to be not only useless in the treatment of that disease but positively harmful.

Another form of illness, namely, venereal disease, with its disastrous consequence, is often the indirect result of alcohol. Many a youth contracts the syphilis which ultimately cuts off his life or his reason in his first drunken spree. Alcohol and sensual vice go hand in hand.

In regard to the mentally deficient, I shall not trespass further upon the ground of those who are to follow any further, than to say that there seems to be a direct casual relation between alcohol and epilepsy. I think in my own limited experience I have many times traced this relationship. Competent authorities say that the causative relation between alcoholism and epilepsy is as evident as that between the bacillus typhosus and typhoid fever.

While I cannot advance any definite proof that the condition of the ne'er-do-well, the man who is unwilling or unable to work, is due to alcohol, one's personal experience seems to indicate that such persons have neither unwillingness nor incapacity insofar as drink is concerned.

Alcoholism begets ignorance, the other foe of Public Health. The children of the drunkard in addition to being ill-clothed, ill-fed and ill-housed, and further in many cases showing visible evidence of the sins of their fathers, are often allowed to grow up in ignorance. The abuse of alcohol sets loose a whole train of evils. Through the medium of sickness, the early death of the breadwinner and the waste of substance, this poison day by day aggravates the evils of poverty and ignorance. Just inasfar as alcohol fosters ignorance and poverty by contributing to the causes of

these two evils it is an enemy of Public Health. The money annually wasted on alcohol would pay the Public Health bills of a continent over and over again and leave a large balance at the bankers' against a rainy day.

We are to have prohibition in this Province. Will this law remove the evils of drink? If so, then all Public Health workers will joyfully welcome its establishment. But a prohibition law will not in my opinion completely stop the evil. People are not made saints all at once. It will, I think, be necessary to maintain for a long period of time an earnest resolute propaganda of education against the drink evil in the school, in the press, and from the platform. Physicians and Public Health men are, because of their knowledge, experience and training, the ones to carry on this program of education. We of all men know the effects and the evils of alcohol. The public should learn from us that there is mighty little, if any, place for alcohol in medicine. They should learn that alcohol is a poison in the same class with opium, cocaine and other deadly drugs, and that the drunkard is no more a criminal than the morphine user. At the present time alcoholic poisoning is a crime in the eyes of the law, while all other poisons are misfortunes. A man suffering from the inhalation of coal gas is taken to a hospital and humanely and scientifically treated; the alcoholic is chucked into a police cell and fined next morning. It is time that the effects of all poisons, alcoholic included, were treated in the same humane and scientific way that the interest of Public Health demands.

To conclude: Alcohol is an irritant poison which contributes, chiefly through sickness, early death and waste of substance, in a large measure to that poverty, misery or destitution which is one of the fundamental obstacles to the ideal National Public Health.

# THE ATTITUDE OF THE PSYCHIATRIST TOWARDS ALCOHOLISM AS A CAUSE OF INSANITY

By C. K. CLARKE, M.D., L.L.D.

THE task assigned to me is anything but a simple one because the attitude of the Psychiatrist towards alcoholism is not always clearly understood by the exuberant temperance orator. The psychiatrist probably realizes and appreciates the evils of intemperance and the shocking results of it as well as any man in the community, but when it comes to a discussion of the direct part alcoholism plays in the development of particular forms of insanity he finds himself face to face with a most difficult problem. It is the habit of the majority of people—especially enthusiastic people, to generalize too much when discussing such questions as the part alcoholism plays in the production of insanity, but the careful observer, when he finds himself face to face with a proposition of this kind, must simply deal with facts as he finds them.

The question which presents itself at once is, what part alcohol plays in the production of not only alcoholic insanities, but any other forms of insanity. A few years ago the advisability of determining the proportion to be found among 1650 cases of insanity admitted under my care was considered and what was learned at that time made a distinct impression. These cases came from a large district in which there was a mixed population but only one city of any size—still a good many fairly large towns. The proportion of alcoholics was surprisingly small, I believe something like  $2\frac{1}{2}$  per cent. where insanity was said to be the direct result of alcoholism. That of course included the women, who as a rule are not alcoholic. Eliminating the women, the percentage rose to something between 4 per cent. to 6 per cent. Careful analysis showed that even these figures were not reliable because it is difficult to establish the absolute cause of any form of insanity where heredity plays such a tremendous part in the evolution of disease. To separate cause and effect is a prodigious task in such instances. In other words it is a simple matter to accept as a fact in many

cases that alcohol is a cause, when a careful study of some of these patients will show that alcoholism is merely the outcome of other conditions easily demonstrated.

When I came to Toronto it was soon quite evident that this community was far more alcoholic than the Kingston district, and on the face of it the proportion of persons suffering from toxic psychoses larger. Possibly that was true, but at once another explanation appeared. In Kingston the majority of the admissions were Canadian-born—in Toronto about 50 per cent. foreign-born, and as I showed during my residence there, the character of the admissions depended very largely on the quality of the immigration. Purely alcoholic psychoses were much commoner than in Kingston, as might be expected. These are, of course, comparatively rare in a country which must be classified as temperate when compared with countries of the Old World.

W. Bevan Lewis stated that the least intemperate communities had the highest rate of pauperism and insanity, while the most intemperate had the lowest rate of pauperism and insanity. That is, where prosperity was greatest and although people could find money with which to become intemperate, there was less mental stress, less poverty and less insanity, thus bearing out Dawson's statements that in Ireland drunkenness and insanity have but a modest relation, but that insanity is a regular accompaniment to poverty and mental stress. Mott takes the same view and states that the incidence of insanity does not keep pace with the incidence of alcohol, and the same conclusion is reached by the American Census Bureau in its publication, "Insane in Institutions," issued in 1910. It is true that some psychiatrists may dissent from these views, but the facts are as stated.

When we come to the comparatively small group of the toxic insanities the way is easier, although again the questions of heredity, etc., come up, because

it is among the weaklings of poor resistance we find most of the victims as they succumb readily. Having thus cleared the way for a discussion of the strictly alcoholic psychoses, what are the facts at our disposal.

Eighty per cent. of the chronic alcoholics admitted to asylums have defective heredity, in at least half of whom the father has been a chronic drunkard. Forty-five per cent. of the alcoholics admitted to institutions are suffering from acute alcoholic hallucinosis; many of these should be classified as cases of delirium tremens and the majority are curable. In a very large proportion, heredity accounts for the predisposition to alcoholism and dementia praecox is commonly present. The Korsakoff psychosis is comparatively rare in this country. The intimate connection between dementia praecox and alcoholism has been clearly pointed out by Bleuler, one of the foremost of the present day psychiatrists.

From the foregoing it will be gleaned that as a direct cause of insanity alcoholism occupies only a minor place—a place that is difficult to define on account of insufficient data to go upon. It is only within the last few years anything like scientific accuracy has been attained in studying the individual with a psychosis, so it is unfair to make sweeping generalizations without accurate facts to go upon. I must confess that some years ago when I began to look into the question, I expected to find different results, but the facts are as stated.

Now, as to the indirect effects of alcoholism, there is in all probability a different story to be told, although here again we soon find ourselves in the region of speculation. No doubt, though, the indirect effects are tragic in the laying of unstable foundations for the coming generations. My observations have convinced me long ago that the children of non-

alcoholics have a much better outlook as far as insanity is concerned than those who have had an alcoholic father or mother. Even if these are free from neurotic taint, it by no means follows that the children will be so.

If one studies the histories of defective children it will here be learned that alcoholism plays a most significant part in the evolution of these weaklings who are such a menace to the state. Here again the question comes up—why were the parents alcoholic, were they defectives, or of insane stock? The difficulty one has to face in the present state of our knowledge is that so little has been done in the way of making absolutely scientific studies in heredity, and the temptation to jump at conclusions is so great, that it will be some years yet before we are sure of our ground.

A recent writer, discussing the problem of alcohol, has well said, "There is no doubt that the importance of alcohol as a cause of insanity has often been overstated. Preposterous percentages have often been quoted, these being not necessarily a question of bad faith, but denoting a lack of analytical skill and the overlooking of factors unfavorable to what is a preconceived idea."

This paper will, I know, be a disappointment to many, but I should be unfair to my scientific standing if I were to present the facts in other light than has been done. I am fully in accord with efforts to obtain true temperance in the province and willing to see almost any restrictions you may suggest placed on the liquor traffic which has brought so much misery and tragedy into the country.

The conclusions presented regarding the psychoses are those accepted by the majority of psychiatrists; they are the conclusions forced on me after long and diligent study.

# THE ROYAL INSTITUTE OF PUBLIC HEALTH

## AN HISTORICAL SURVEY, 1886-1913

By A. CORBETT-SMITH

THE Science of Public Health—for it may suitably be regarded as such—would appear to be of comparatively recent origin. But from the time when attention was first directed to the tremendous import of the subject its development has been as rapid as its advent was long delayed. To visualize this development one need but recall the total neglect of disease preventive measures amongst British troops in the Crimean War—to take one branch of the science—and the terrible consequences involved, and then trace the gradual appreciation of facts and the growth of knowledge through the successive campaigns of France and Germany, South Africa, and of Russia and Japan.

It has become an accepted fact that in this country any movement of genuine importance must rely for its inception and expansion upon individual enterprise and not upon the State. The origin of The Royal Institute of Public Health, and all that this body connotes, is no exception. One evening, about the middle of the year 1886, some half-dozen gentlemen were discussing, in the drawing-room of the present Principal of the Institute, the negligible value of the Diploma in Sanitary Science which was granted by various Universities and Corporations, in that such was not a registrable qualification by the General Medical Council. They then and there decided to form a society with the object of promoting legislation to confer this power upon the Council.

Thus was the initial step taken. To-day the influence and importance of that society, now possessing an influential membership extending all over the world, may be gauged by the fact that in 1912 the Municipality of Berlin extended to it a cordial invitation to hold their annual congress in that city, and that this was followed by a similar invitation for 1913 from the Paris Municipality.

### *The Medical Act, 1886.*

It will be of interest to look back over the quarter of a century which has elapsed and record the successive milestones in the path of progress. It happened that Sir

Lyon Playfair, M.P., who was at the time Vice-President of the Privy Council, had charge of a bill which dealt with the composition and powers of the General Medical Council. Representations on behalf of the newly formed society were at once made to him that opposition would be organized against the bill unless a clause were inserted conferring upon the Council the desired powers of registration. One main feature of the Bill was that by its provision no medical practitioner could obtain registration unless he was qualified in medicine, surgery and midwifery; this had not hitherto been the case.

Now before the Bill was passed by the House of Commons, Mr. Gladstone's Government suffered defeat, and the premier thereupon announced his intention to drop every Bill which met with opposition. The Society caused an amendment to be placed on the paper of the House of Commons with the above object in view, and at the same time obtained petitions in its favor from all the Universities and Medical Corporations of the kingdom. With the enlistment of Sir Lyon Playfair's interest the amendment was adopted, the Bill shortly afterwards receiving the Royal assent and becoming the Medical Act, 1886.

### *"Diploma in Public Health."*

The Association from this time forward took an active interest in urging the claims of those possessing these diplomas. By securing the framing of regulations by the General Medical Council by which the diplomas given by the Universities and Medical Corporations should alone be recognized, uniformity in the curriculum of studies and in the examinations therefor was attained, and the value of the diploma was increased. Subsequently, and consequent upon representations which were made, the definite term "Diploma in Public Health" (D.P.H.) was generally adopted by the Universities and Medical Corporations.

The next obvious step was to secure statutory provision by which the possession of a diploma so granted should be rendered compulsory upon all seeking to hold office as a Medical Officer of Health to districts of 50,000 or more inhabitants. Such provi-



sion is now made by the Local Government Act, 1888; it was afterwards extended to Scotland, so as to include appointments to any burgh or district.

It is difficult to exaggerate the far-reaching importance of these reforms, reforms which were admittedly due to the untiring efforts of the Society. From thenceforward there was to be at the head of every Public Health Administration in the kingdom an officer carefully trained and fully qualified in the specialized work which lay before him. Moreover, the value of the diploma became increasingly recognized by medical officers in the Navy, Army and Colonial Service, who, by their voluntary training in the necessary courses for the examination, have increased a hundredfold the utility of their services to the State. So, in proportion, have such vast improvements been effected in the conditions under which the people live as would have seemed a romance of Utopia to the most ardent and optimistic reformer of fifty years ago.

#### *Incorporation of the Society.*

These events bring us to the year 1892, when the opening chapter in the Society's history may be said to close. Record should, however, be made of the names of the three Presidents during this period. These were Sir Joseph Fayrer, Bart., M.D., K.C.S.I., K.H.P., in 1886; Professor Sir Douglas MacLagan, M.D., LL.D., 1887; and Professor Sir Charles A. Cameron, C.B., M.D., from 1888 to 1892.

In 1892 the Society had under consideration the momentous decision whether, in view of the fact that it had now accomplished the work for which it had primarily been constituted, it should dissolve or should continue to exist, with an unlimited expansion of its original programme, solely for the public welfare. The decision was made, and on February 11, 1892, the Society became incorporated, under license of the Board of Trade, as "The British Institute of Public Health." The application for such incorporation was signed by Sir Charles Alexander Cameron, M.D., Dublin; Sir Douglas MacLagan, M.D., P.R.S., Edin.; Thomas Wrigley Grimshaw, M.D., Registrar-General for Ireland; Henry Duncan Littlejohn, M.D., Edinburgh; Professor William Robert Smith, M.D., London; Charles Meymott Tidy, M.B., London; and Francis John Allan, M.D., London.

#### *The College of State Medicine.*

Before considering the subsequent history of the Institute reference may briefly be made to an offshoot of the original Society. In 1886, just subsequent to the formation of the Society before mentioned, those gentlemen who had taken the most active part in its formation, having in view the object of establishing a centre in London for the training of those desirous of obtaining the diploma in Public Health, founded the College of State Medicine with laboratories at 101 Great Russell Street, W.C. This was incorporated the same year. Dr. E. Klein, F.R.S., and Dr. William Robert Smith, F.R.S. Edin., were respectively appointed Professors of Bacteriology, and of Hygiene and Public Health. This College, after existing for some years, was amalgamated with another institution which had been subsequently established, viz., the British Institute of Preventive Medicine. This body is now known as the Lister Institute of Preventive Medicine.

In 1892 the newly incorporate Institute arranged, in Dublin, under the presidency of Sir Charles A. Cameron, C.B., the first of the series of Annual Congresses, which have been held uninterruptedly down to the present time, and which have contributed in no small measure to the success of its aims and objects.

#### *The Qualification of Sanitary Inspectors.*

During the consideration of the Public Health (London) Act of 1891 the Council considered it was opportune to take action with the view of obtaining statutory recognition for a qualification for Sanitary Inspectors, and it was gratifying to them to find the amendment which they drafted embodied, after much difficulty, in the Act.

By this it will be seen that the Local Government Board had power to recognize the certificates given by various bodies in this connection, and application was made for recognition of the Certificate of the British Institute of Public Health. At the same time the strongest representations were made by the Institute to the Local Government Board of the great desirability, in the public interest, of there being only one such certificate recognized, the examinations for which should, in some way, be brought under Government control. It was only after ten years of stolid persistence on the part of the Council, dur-

ing which it met with the greatest opposition from interested bodies, that its views prevailed, and the Sanitary Inspectors Examination Board, upon which this Institute is represented, was incorporated in February, 1899. The certificate from this Board alone qualifies for appointments in London. It is hoped that the time is not far distant when, in the interests of the public and municipal and other sanitary bodies, the powers and privileges of this Examination Board will be extended over the whole country.

#### *Royal Recognition.*

The second chapter in the Institute's history covers the period between 1892 and 1905, during which years its headquarters were somewhat restricted offices in Bloomsbury Square. But despite these and other material drawbacks the work of progress went steadily forward, and in the summer of 1897 her late Majesty Queen Victoria, in recognition of its increasing value to the community, conferred upon the Institute the title of "Royal" and became its Patron. This patronage has been graciously continued by his late Majesty King Edward VII., and by the present King.

#### *The London Congress, 1894, and a Presentation.*

Towards the close of 1894, and in the nature of a sequel to the remarkable and brilliant success of the Congress held in London\* during the summer, under the Presidency of Professor William R. Smith, M.D., D.Sc., an interesting meeting was held at the Mansion House, with the Lord Mayor, Sir Joseph Renals, in the chair. At this meeting the Lord Mayor, acting on behalf of the Honorary Fellows, Fellows, Members and Associates of the Institute, presented Professor Smith with an illuminated address, together with a service of plate, "in recognition of the eminent services he had rendered to the cause of public health in this country, and in testimony of the esteem and respect in which he is held."

#### *The Harben Trust.*

In May of the same year Sir Henry Harben, J.P., D.L., late Master of the Worshipful Company of Carpenters, created a Trust by virtue of which the Council of the Institute were empowered, upon

the nomination of a specially appointed committee, to confer a gold medal of the value of fifty guineas, annually, or at least every third year, in recognition of "Eminent services rendered to the Public Health," without regard to any nationality. A list of the recipients of the medal, together with the names of the Harben Lecturers, a Trust similarly created at the same time, by which a Lecturer shall be appointed annually to deliver three lectures embodying original research, will be found in Appendices B and C.

It may here be observed that the qualifying clause, "without regard to any nationality," has always possessed for this Institute a very real significance. The science of Public Health knows no artificial nor national boundaries, and the Institute, early recognizing this fact, has adopted from the outset a policy which is as welcome as it is rare with so many of our British public bodies.

It is only fitting to record here the interest which from this time Sir Henry Harben took in the welfare and progress of the Institute, until his death in 1912, and which interest has been continued by his daughter, Mrs. Wharrie, of Hampstead, font St. Giles, one of the present trustees, and his grandson, Henry Devenish Harben, Esq., J.P., of Newlands Park, Chalfont St. Giles, one of the present trustees.

#### *The Chamberlain Banquet.*

An event of no small interest marked the year 1904. This was a banquet given in June by the Institute in honor of the Rt. Hon. Joseph Chamberlain. It was made the occasion for the presentation of the Diploma of Honorary Fellow of the Institute, an honor but sparingly bestowed, and only upon those who are "eminently distinguished in the cause of the Public Health." It was felt that such recognition as was possible was due to Mr. Chamberlain in view of the great services which he had rendered to preventive and tropical medicine during his tenure of office of Secretary of State for the Colonies, 1895 to 1903; and the many guests of the highest distinction, including the Premier and several members of the Cabinet, representative of every phase of public work, who assembled to do honor to Mr. Chamber-

\*This Congress was of particular interest in that it was the first of its kind held in London at which delegates were invited from municipalities all over the kingdom.

lain, showed how deeply such work was appreciated.

*The Institute and Its Laboratories.*

The following year, 1905, witnessed the opening of a new chapter of the history, a chapter which may be said to have reached its climax in the summer of 1912, and the first official recognition on the Continent of the work, practically of an international character, of the Institute. It may here be noted that during the years 1905-1911 the office of President of the Institute was filled by the Rt. Hon. the Lord Stratheona and Mount Royal, G.C. M.G., G.C.V.O.

Some thirteen years previous Sir Chas. Cameron had foretold the need of the existence, in a central position in London, of laboratories for bacteriological and other research work. The years following witnessed remarkable developments in many paths of science, and not the least important of these was the close connection which was now realized to exist between bacteriology and public health work. A scheme was gradually formulated for the establishment in London of some such institution as that above indicated, which could not only undertake the training requisite for a Public Health Diploma, but could also provide facilities for such research work as might be required on behalf of public bodies and other authorities.

This scheme materialized in 1905 in the acquisition by the Council of the Institute of convenient and commodious premises in Russell Square. Here a series of admirable laboratories was constructed, and the increasing volume of work which is now being executed testifies to the high purpose which they serve.

Five years later the Council provided special serological laboratories, with the object of developing the Forensic Medicine and Toxicological section of the Department of State Medicine; of placing at the disposal of the public in medico-legal inquiries the precipitin test for blood, etc., and of affording facilities for general practitioners to obtain the Wassermann reaction for syphilis. These laboratories were inaugurated at a reception given to the Lord Chief Justice of England and His Majesty's Judges of the Appellate Tribun-

als and High Courts of Justice on Tuesday, December 6, 1910.

The whole of the bacteriological and chemical laboratories are now at the disposal of county councils, municipal and other sanitary authorities, medical practitioners and private persons for researches of a public health character and for clinical investigations.

Amongst these may be comprised:

*Chemical Laboratories.*

Analysis of water, foods, drugs, sewage effluents, etc.

Examination of faeces and urine for clinical purposes.

*Bacteriological and Serological Laboratories.*

The bacteriological examination of water, milk, sewage effluents, etc.

The examination of throat swabs, sputa, blood, urine and faeces.

The standardization of disinfectants, etc.

The physiological standardization of drugs.

The Wassermann reaction for diagnosis of syphilis.

The agglutination and other tests for the diagnosis of the various infectious diseases, etc., such as typhoid, cerebrospinal meningitis, and the like.

The diagnosis of infectious diseases of animals.

As regards private research work every facility is afforded, and it may incidentally be remarked that the Institute is a recognized place of research in connection with the Beit Memorial Fellowships. Further, the Council appoint yearly as assistant demonstrators four medical practitioners who possess a Diploma in Public Health, and who are desirous of obtaining a more extended knowledge of laboratory work.

*Department of Agricultural Biology.*

Partly consequent upon the introduction of plague in Suffolk there has been created a new Department of Agricultural Biology, by which facilities for laboratory researches will be afforded to members, and in connection with which the systematic and simultaneous destruction of rats and other vermin is urged upon the authorities. A public meeting was held



under the auspices of the Institute in the Guildhall of the City of London on Monday, February 6, 1911, the Right. Hon. the Lord Mayor being in the chair, with the view of stimulating a greater interest in the matter.

#### *Department of National Health.*

Of all the important movements which the Institute has initiated probably one of the most notable and the most far-reaching in its effects was the creation of a Department of National Health, of which Her Majesty, the Queen Mother, is Patron, and which is under the management of a committee of influential ladies, with Lady St. Helier as President.

During the year 1908 the Council, in view of the ignorance which prevails on the part of the very poor of the more common laws of health and the right principles of infant rearing, determined to institute classes in the various subjects of domestic hygiene for those who have ready access to the poor, such as district visitors and the like. After attending a specified course of instruction, and upon passing an examination, certificates are awarded. The first class under this scheme was held in 1908 at the Salvation Army Training College at Clapton, and 361 cadets subsequently obtained certificates. Since this time classes have been held annually at the Clapton Training College, and no less than 1,030 certificates have been awarded. Classes of a like nature have been organized at the Polytechnic, Regent Street, and in various Boroughs of the Metropolitan area, and similar certificates awarded after examination.

In connection with this Department of National Health, classes have been established at the Institute for the instruction in hygiene of those women desirous of qualifying as health visitors and school nurses. Examinations are held three times yearly for those qualified to present themselves, and the certificates which are awarded are recognized, under the General Order of the Local Government Board, dated September 4, 1909, as certificates of competency for appointment as health visitors in the City of London and Metropolitan Boroughs, under the London County Council (General Powers) Act, 1908.

And so we reach the close of 1911, and enter upon a year which, as we have suggested above, has proved of signal importance in the Institute's history. Four factors of noteworthy interest have contributed to this end, and these may suitably be considered seriatim.

#### *A Memorable Year.*

In 1892, with the incorporation of the Institute, there was issued the first number of the *Journal of State Medicine*, the official organ of the Society. Originally appearing quarterly, it soon came to be issued every two months, while now, for the last fifteen years, it has been published monthly, at the same time with an increase in size.

With the beginning of 1912, a new form of the *Journal* was projected, a form which may confidently be asserted to mark an entirely new departure in the periodical issue of scientific literature. In the opinion that some more adequate provision was desirable for the benefit of those interested in particular problems of research work in preventive medicine, for the systematic condensation of the results obtained from time to time in the various branches of bacteriology, protozoology and hygiene, the Council desired to create a *Journal* which should be international in character, but which might appeal not only to specialists, but also to general medical practitioners, and especially to those who are responsible for the direction of public health laboratories or other allied forms of work.

Thus the principal feature is a series of monographs, written by well known specialists, of which at least twenty-four are published annually; and secondly, the publication of original articles on important questions connected with the public health, as well as reports upon original investigations in the departments above mentioned. It may incidentally be remarked that when a paper is contributed in French or German an English translation is, as a rule, added.

It is unnecessary to do more than direct attention to the constitution of the Board of Collaborators set forth on the title-page. The list of names of these gentlemen of high eminence in the scientific world is as comprehensive as it is remarkable, and the

Council must surely feel the utmost confidence in leaving the destiny of the Journal in their hands.

#### *The Lever Museum.*

Through the kindness of Sir William H. Lever, Bart., who, with public spirited generosity, has provided the necessary funds, there has been founded a Museum which is intended to contain a complete collection of those micro-organisms connected with the more important infectious diseases. The collection exhibits the typical growth of the microbes, the biological characteristics leading to their identification, and their morphology in the form of diapositives and photomicrographs. A large number of these have been obtained through the kindness of Professor Bujwid and Professor Nowak, of the University of Cracow.

There are also exhibited specimens illustrative of the pathological lesions produced by such organisms in the animal body; others of important bacterial products with their contra-remedial agents.

There is a section devoted to demonstrations of the various serological reactions which render possible precise diagnosis of infectious diseases. Another section contains the important group of non-pathogenic organisms; while in connection with the Forensic Medicine Department there is exhibited a complete series of the vegetable and mineral poisons, kindly presented by the Worshipful Society of Apothecaries, London.

#### *The Berlin Congress.*

To these two comprehensive schemes must be added a third project, which is equally indicative of the Council's liberal and progressive line of action. We have remarked above upon the significance of the phrase, "without regard to any nationality," and have suggested that a considerable measure of the Institute's success has been due to the nice appreciation of such significance. In 1912 it was realized that the work of the Institute had secured a European reputation, and the invitation of the Municipal Council of Berlin to hold the Annual Congress in that city was accepted.

The unprecedented success of the meeting held under the presidency of the Rt. Hon. the Earl Beauchamp, K.C.M.G.,

H.B.M., First Commissioner of Works, far exceeded all anticipation; the outstanding feature being the enthusiasm with which private enterprise vied with the great Departments of State and the Municipality in extending the warmest possible welcome and hospitality to the delegates and members, and in facilitating in every way the work of sections. It is confidently anticipated that the meeting in Paris this year, with the support of the French Government, will prove of equal value and interest.

#### *Extension of the Institute Premises.*

The fourth factor which has rendered the year 1912 so noteworthy is the further extension of the Institute premises. By a fortunate chance the Council were enabled to secure the lease of the adjoining house in Russell Square, and while the expenses involved in refitting and redecorating these premises in a suitable manner as an adjunct to the main building have been considerable, the Council were unanimously of opinion that so excellent an opportunity should not be allowed to pass.

#### *The Founder of the Institute.*

The record of a quarter of a century's achievement is a noble one of which the Royal Institute of Public Health has just reason to be proud. But while we speak thus of collective achievement no such record can be complete without some reference to the one personality upon whose shoulders rests, and has rested since its inception, the burden of the enterprise.

Doubtless, at some future date, there will be realized the great debt of gratitude due on the part of the community to Professor William R. Smith, M.D., D.Sc., F.R.S.Ed., the present Principal, and President 1894 to 1905, for his unremitting and wholly gratuitous labor in the cause of the public health. For it may be said without exaggeration that the creation, organization and continued progress of this Institute is practically entirely due to his energetic skill and wise administration.

#### *A Great Organizations.*

Originally founded, as we have seen, with but one definite aim in view, the Institute has grown into a great organization, containing departments dealing with

practically every branch of public health work, and its courses of instruction are now fully recognized by the Educational and Medical Corporations of the kingdom.

In view of the position which the Royal Institute of Public Health occupies in the public life to-day, the question may well be asked whether there is not due to it a fuller measure of recognition than has hitherto been accorded. The work has been nobly performed, the care and labor have been ungrudgingly bestowed. When we consider the amelioration which has been effected—in very great measure through the instrumentality of this Institute, and the untiring efforts of its officers—in the health and conditions of life of the people, we may well express surprise at the fact that no contribution whatever is made from the public funds to its support, but that the Institute relies for its maintenance and the progress of its work almost wholly upon the subscriptions received from its fellows and members. And yet it may truly be said that no recognition nor reward can be greater than that which is found in the knowledge of its achievement.

#### APPENDIX A.

##### *Annual Congresses, With Their Presidents.*

- 1892. Dublin: Sir Charles Alex. Cameron, C.B., M.D., F.R.C.P.I. (Hon.).
- 1893. Edinburgh: Prof. Sir Henry Duncan Littlejohn, M.D., LL.D.
- 1894. London: Prof. Wm. Robt. Smith, M.D., D.Sc., F.R.S.Edin.
- 1895. Hull: The Most Hon. the Marquis of Ripon, K.G., G.C.S.I., D.C.L.
- 1896. Glasgow: The Hon. the Lord Provost of Glasgow (Sir James Bell, Bart., LL.D., D.L.).
- 1897. A meeting was held in the Guildhall, London, under the Presidency of the Rt. Hon. the Lord Mayor of London (Alderman Sir George Faudel Faudel-Philips, Bart., G.C.I.E.), to congratulate Her Majesty the Queen on the progress made during the sixty years of Her Majesty's reign in the cause of the Public Health.
- 1898. Dublin: Sir Charles Alex. Cameron, C.B., M.D., F.R.C.P.I. (Hon.).
- 1899. Blackpool: His Grace the Duke of Argyll, K.G., K.T., G.C.M.G., G.C.V.O.

- 1900. Aberdeen: The Right Hon. the Earl of Aberdeen, K.T., G.C.M.G.
- 1901. Eastbourne: His Grace the Duke of Devonshire, K.G.
- 1902. Exeter: The Right Hon. the Earl of Iddesleigh, C.B.
- 1903. Liverpool: The Right Hon. the Earl of Derby, K.G.
- 1904. Folkestone: The Right Hon. the Earl of Radnor.
- 1905. London: The Most Hon. the Marquis of Londonderry, K.G., Lord President of the Council.
- 1906. Cork: The President of Queen's College, Cork (Professor Sir B. C. A. Windle, M.D., D.Sc., F.R.S.).
- 1907. Douglas, Isle of Man: The Rt. Hon. the Lord Raglan, C.B., Lieut.-Governor Isle of Man.
- 1908. Buxton: His Grace the Duke of Devonshire, K.G.
- 1909. Leeds: Col. T. W. Harding, D.L., J.P. (In conjunction with other bodies).
- 1910. Birkenhead: Sir Wm. Hesketh Lever, Bart.
- 1911. Dublin: Her Excellency the Countess of Aberdeen.
- 1912. Berlin: The Right Hon. the Earl Beauchamp, K.C.M.G., LL.D., H.B.M. First Commissioner of Works.
- 1913. Paris:

#### APPENDIX B.

##### *Harben Gold Medallists.*

- 1896. Sir John Simon, K.C.B., LL.D., D.C.L., F.R.S., London.
- 1897. Prof. Max von Pettenkofer, M.D., Munich.
- 1898. The Right Hon. the Lord Playfair, G.C.B., London.
- 1899. The Right Hon. the Lord Lister, O.M., London.
- 1900. Prof. Robert Koch, M.D., Berlin.
- 1901. Sir Charles A. Cameron, C.B., M.D., F.R.C.P. Irel. (Hon.), Dublin.
- 1903. Prof. Wm. Robert Smith, M.D., D.Sc., LL.D., F.R.S.Edin., London.
- 1906. Prof. Elie Metchnikoff, Paris.
- 1909. Prof. E. Von Behring, M.D., Marburg, Germany.
- 1912. Prof. E. Roux, Paris.

## APPENDIX C.

*Harben Lecturers.*

1896. E. E. Klein, Esq., M.D., F.R.S., London. "Recent Researches on the Identification of the Typhoid Bacillus and the Cholera Vibrio."
1897. Prof. G. Sims Woodhead, M.D., F.R.S. Edin., Cambridge. "On the Bearing of Recent Bacteriological Investigations on Public Health."
1898. Sir Richard Thorne Thorne, K.C.B., M.B., F.R.S., London. "Administrative Control of Tuberculosis."
1899. Prof. Wm. Robert Smith, M.D., D.Sc., F.R.S. Edin., London. "Diphtheria."
1900. Prof. J. Calmette, M.D., Lille. "Bubonic Plague: Its Clinical Forms in its Recent Centres."
1901. Prof. Max Gruber, M.D., Vienna. "Bacteriolysis and Haemolysis."
1902. Major Ronald Ross, C.B., D.Sc., LL.D., F.R.S., Liverpool. "Intermittent Fever."
1903. Prof. Ferdinand Hueppe, M.D., LL.D., Prague. "Tuberculosis."
1904. Prof. Sir John McFadyean, M.B., LL.D., F.R.S. Edin., London. "Glanders."
1905. Prof. Sir Thos. Oliver, M.A., M.D., LL.D., F.R.S. Edin., Newcastle-on-Tyne. "Dangers to Health in Working in Compressed Air and in Poisonous Atmospheres."
1906. Prof. Elie Metchnikoff, Paris. (a) "The Hygiene of the Tissues"; (b) "The Hygiene of the Alimentary Canal" (c) "Hygienic Measures against Syphilis."
1907. Prof. Paul Ehrlich, M.D., Frankfurt. "Experimental Researches or Specific Therapeutics."
1908. Prof. G. H. F. Nuttall, M.D., D.Sc., F.R.S., Cambridge. "Protozoal Diseases."
1909. Prof. R. Pfeiffer, M.D., Breslau. (a) "The Importance of Bacteriolysis in Immunity"; (b) "Endotoxins and Anti-Endotoxins"; (c) "The Problem of Virulence."
1910. Brevet Lieut.-Colonel W. B. Leishman, M.B., R.A.M.C., Professor of Pathology, Royal Army Medical College. "Anti-Typhoid Inoculation."
1911. Prof. Paul Uhlenhuth, M.D., Berlin. (a) "Experimental Investigations on Hog Cholera"; (b) "The Biological Differentiation of Proteids by the Precipitin Reaction, with Especial Reference to the Forensic Examination of Blood and Meat"; (c) "Experimental Studies of Syphilis."
1912. Prof. Simon Flexner, M.D., New York. (a) "The Biological Basis"; (b) "The Local Specific Treatment of Experimental Infections"; (c) "The Local Specific Treatment of Epidemic Cerebrospinal Meningitis."
1913. Prof. J. Bordet, M.D., Brussels. (a) "Anaphylaxis"; (b) "The Mechanism of the Coagulation of the Blood"; (c) "Microbian Variability in Relation to Sero-Diagnosis, with Especial Reference to the Micro-Organism of Whooping Cough."

# THE MOTHER IN INDUSTRY

By JOHN MARTIN

(The fourth in the series of articles on *The Four Ages of Woman*, in which Mr. Martin sets forth a "program of humanism" in opposition to what he regards as socially destructive phases of the feminist movement.)

(In the fifth and concluding instalment of this series, Mr. Martin will discuss *Woman's Work in the Autumn of Life*.)

FOR the mother who accepts support from her children's father while she is bearing and rearing them, Feminism has neither patience nor respect. She is a "parasite." "This economic dependence of the human female on her mate" it is which has "modified her to sex to an exhaustive degree." (*Woman and Economics*, by Charlotte Perkins Gilman, page 38.) Neither the woman who supports herself without having children nor the woman who has children without supporting herself is best aiding the woman's movement, say young feminists, but the woman who both supports herself and has a family.

An awful era of female parasitism threatens civilization, Olive Schreiner declares "During the next fifty years so rapid will be the spread of the material conditions of civilization that the ancient forms of female domestic, physical labor of even the women of the poorest classes will be little required their place being taken, not by other females, but by always increasingly perfected labor-saving machinery," so that "it would be entirely possible for the female half of the race, whether as prostitutes, as kept mistresses or as kept wives, to cease from all forms of active toil." (*Woman and Labor*, page 115.)

"Kept wives" are classed with "prostitutes and kept mistresses," for it is self-evidently absurd that "we justify and approve the economic dependence of women upon the sex relation in marriage while we condemn it unsparingly out of marriage." (*Woman and Economics*, page 97.)

How ridiculous that the trifling factor of marriage should make so enormous a difference to our opinion of "the economic dependence of women upon the sex relation"! The Madonna with her children clinging around her knees merits little more reverence than the sinning Magdalene, in the eyes of feminism, unless she ennoble her mother-

hood by toiling in field or factory for the support of her offspring.

Bearing children is no excuse for welcoming "parasitism." The mother should resent the indignity of dependence on husband, for "this economic use of sex is the real cancer at the very root of the sexual relationship." "It is but a step further and a perfectly logical one that leads to prostitution." (*The Truth about Woman* by C. Gasquoine Hartley, page 215.) In Egypt, in the halcyon days of woman rule, "woman's position and liberty of action was in no way dependent on her power of sex fascination and not even directly dependent on her position as mother, and this really explains the happy working of their domestic relationships." (*Truth about Woman*, page 216.)

But there is a cleavage of opinion as to the best scheme for dispensing with the husband's support. One section of feminists smiles approvingly on all proposals for the state endowment of motherhood, the payment by the community to the mother direct of weekly sums sufficient to support her and her children during their time of tutelage, as a public recognition that child-bearing is a communal service, not a private luxury, which being essential to the continuance of the nation, should be equally rewarded with the service of the soldier in the defense of the nation.

H. G. Wells would even abrogate the private family altogether. Socialism is the state family, he contends, and "the old family of the private individual must vanish before it just as the old water works of private enterprise or the old gas company. They are incompatible with it."

This cure for mother's parasitism, however, is repugnant to those feminists who exult in all woman's industrial activity, because it implies payment for sex functions and "women are not salaried as mothers and it would be unspeakably degrading if they were." (*Woman and Economics*, page 17.) Also and mainly, child-bearing and child-rearing, to the feminists, are only episodes in woman's life which may be passed through smoothly and light-heartedly without serious interruption of her business and professional duties.

They protest against "the economically unsound, unjust and racially dangerous tendency in many salaried professions to



enforce upon woman resignation on marriage." They deplore the fact that some women doctors retire from practice at marriage, and they consider it is "much more desirable from the point of view of medical women as a whole for them to continue their work." This course is practicable and safe although "while bearing a child such a doctor will need to retire from practice for at least two or three months, probably longer"—an unjust, inescapable handicap. (Women Workers in Seven Professions, edited by Edith J. Morley, page 162.) For at least two or three months the delight of amputating limbs must be abandoned by the female medico for the mere matter of creating a human being! At the best, evidently woman cannot attain complete equality with man.

And this glad day of mother's emancipation from father's support is fast approaching. The president of Bryn Mawr College predicts composedly that "in the immediate future all dowerless women who wish to marry men without inherited fortunes or extraordinary money-making capacity must work for their own and their children's daily bread." (A New-fashioned Argument for Woman Suffrage. Published by the National Woman Suffrage Association.)

This doctrine puts feminism in close alliance with machine industry where "the field of employment constantly widens in which wives are expected to earn wages, as in tobacco factories, laundries, cigar-making, the garment trades and the textiles. Industry now counts upon having not only men and girls but married women as well. Girls marry with the knowledge that as wives they will have to work for wages, and accept it as the will of God or the curse of nature when in their families babies die." (Modern Industry, by Florence Kelley, page 15).

Indeed, though ignorant of feminist teachings, thousands of mothers throughout the civilized world are wage-earning in factory and mill and field and store, utterly unaware how much their self-abnegation has raised their dignity and improved the status of womanhood!

On the contrary, with a perversity which perplexes the feminist, the genuine working mother, in the overwhelming proportion of cases, regards her "economic independence" as a curse to herself, to her children and to the community, and is eager to escape it.

Of its deleterious effects on her and her

offspring the evidence is appalling,—to humanists, perfectly convincing.

Dr. George Reid, county medical officer of Staffordshire, England, made an investigation of the early life history of 4,275 infants born in the county in six pottery towns in 1908. He found that in the first year, out of every one thousand births, among those whose mothers stayed at home 146 died, and among those whose mothers were working in factories or were from home during the day 209 died. There was an extra death-toll, then, of 63 per thousand due to the mother's "economic independence."

Dr. John Robertson, medical officer of health in Birmingham, England, found in a district inhabited by very poor, unskilled laborers, that among the mothers employed before confinement, 52 out of one thousand births were premature; among mothers not employed before confinement, 38 out of one thousand were premature—a direct sacrifice of 14 nascent lives out of every thousand to the Moloch of "economic independence." He testifies further that "a larger percentage of infants of mothers not employed than of those of mothers employed were at the end of twelve months in good health."

"In the special area under review there seems to be no doubt about the prejudicial influence of employment of pregnant and nursing mothers in factories, both on their infants and on themselves."

"It is singular" writes Dr. Thomas M. Dolan, "how unanimous all medical officers of health are in assigning the employment of women in factories as a cause of infant mortality."

Germany adds her weight to the testimony.

In regard to the injurious effect of factory work, the factory inspector of Wurttemberg writes:

"The children of such mothers—according to the unanimous testimony of nurses, physicians and others who were interrogated on this important subject . . . are mostly pale and weakly; when these in turn must enter upon factory work immediately upon leaving the school, it is impossible for a sound sturdy, enduring race to develop." (Reports of German Factory Inspectors Berlin, 1905.)

Dr. Max Hirsch relates that

"a very considerable number of reports indicate as a cause of the excessive mortality of suckling infants, besides insufficient nourishment, the insufficient care given to them, since the mother is prevented by work

at the factory from devoting herself sufficiently to her children when they are in good health and even when they are sick." (Prohibition of Night Work for Women, page 27).

From America equally full testimony is not obtainable, because vital statistics are not so accurately kept and scientific investigations on this matter have not been so thorough. But in America also, "in cities where a large proportion of the women are industrially employed, a high rate of infant mortality is almost always found." (Chas. H. Verrill, United States Bureau of Labor, at International Congress on Hygiene and Demography, 1912.) Of an investigation by the federal Children's Bureau into the infant mortality in Johnstown, Penn., in 1911, Julia C. Lathrop, director of the bureau, writes:

"Where mothers were forced to work in order to supplement the husband's income the mortality rate for their babies was 188 as against 117.6 in the families where the mother was not forced to work directly before or after the birth of her child. . . . It was also found that in the matter of feeding, artificially fed babies died at an appallingly greater rate than breast fed babies."

And when the mother is also a wage earner artificial feeding is a necessity. Thus the mother's wage earning means death to the baby.

Incontrovertible evidence of like character could be offered, in overwhelming quantity, to prove that, in real life the results of the struggle for economic independence by women is the black opposite to the forecasts in the golden dreams of feminism.

Confronted with this mass of evidence of the sacrifice of infants, the mutilation of mothers, and the wreck of homes wrought by the industrial employment of mothers, feminism begins to protest that this hideous outcome, though it accompanies the mother's wage-earning, is a consequence not of her toil but of her poverty, ignorance and environment.

Doubtless these factors affect the appalling result as is claimed in the report of the United States Bureau of Labor upon a very limited inquiry into the effects of the employment of mothers in the mills of Fall River. An enlightened mother, well trained and prosperous, whose home was happy and healthy, would keep her baby in health even though she went to the factory herself, better than another mother who, stupid,

half starved and wretched, sat dully by the cradle, doping her baby with narcotics.

But, all other conditions being the same, of two mothers, she who suckled her infant at her breast and hourly attended to its every want in her home would, self-evidently keep burning its fitful flame of life more securely than she who left it daily for ten hours to a nursing-bottle and a casual, hired attendant.

Misery and ignorance, bad housing and insanitary habits, all are allied with mother's industrial occupation in the destructive battle against the babies and their homes. all are growths from the same evil root—the insufficiency of the father's wages to sustain his home in reasonable comfort.

Not the industrial enslavement of mother, but the adequate remuneration of father is the remedy to be sought says humanism.

Further, the varicose veins, the killing fatigue, the strain on the reproductive organs, and the drained vitality that afflict the mother herself are directly caused by her employment, irrespective of her own penury and illiteracy. An intelligent and well-to-do woman will not subject herself to the evil conditions. A very brief experience will convince her that whether or not mother's place is in the home, mother's place is not in the factory.

Driven by the mass of the facts, feminism has only one manœuvre left. "We admit," feminists say, "that as conditions now obtain they are a disgrace to civilization, a peril to womankind and a menace to the race. But they are injurious also to men. In the interest of both sexes we shall amend factory acts, improve wages, shorten hours, and make all work-palces sanitary; so that ill-health, pain sterility and infanticide will no longer, in the woman's paradise, be the toll exacted for woman's economic independence."

Although the most revolting consequences of woman's toil, in the sweated industries and under the vilest circumstances of overwork and underpay, should be mitigated by legislation and public opinion, humanism recognizes that woman's condition in industry can never be equalized with man's.

Always man can stand in front of the machine for long hours daily without injury to himself or influence on his progeny, and always the effect of the same work on woman's reproductive organs will be torturing to her and murderous to her infants. Always

woman's lesser muscular strength and greater natural need for quiet and retirement, especially at certain periods each month, must place her at a disadvantage in comparison with man. Always nature's unrelenting, urgent call to woman to obey the racial summons will break up woman's ranks, shatter their solidarity in industry, and render them less able than men to combine permanently for mutual defense. Always the rigor of machine work which must be done with the regularity and persistence of clock work will be less suitable for woman than work in the home and by hand, which may be done irregularly as her capacity dictates.

Especially, and above all else, always will the pains and exhaustions and anxiety of pregnancy and child-bearing and baby-tending vitally handicap mothers in industry and push them down to the bottom of the industrial pit. The imperative conditions of their life forbid them to rise in industry. Never can they be prosperous, happy, contented and healthy in industry. As well try to suit the northern winter climate to orange trees by burning stoves in the fields as try to adjust the industrial climate to women by enacting factory laws.

How long shall the unrelenting care of the conscientious mother endure? One year, two years, three years? Six years?

With no woman to help her (and only one household in ten can afford even one servant), how soon will the baby be so far self-caring as to make it safe for mother to desert it daily for ten hours? In these merciful days, when employers are forbidden under penalties to work women more than eight to ten hours a day, humanism sees that it would not put woman on an equality with man to arrange that, so soon as baby leaves them free for a few hours out of the twenty-four, they shall take up other wearing duties.

Mother also is entitled to some rest and change. She must not be treated as a criminal sentenced to hard labor. Since feminism admits that she is a human being she must be worked humanely. So the tyranny of baby, endured gladly for love, must not be supplemented, at the moment it begins to moderate, but the tyranny of the machine or of Mammon. Altogether even

one baby is a creative work that absorbs more vital force and utilizes more executive skill than a third-rate novel or a pettifogging law practice. It would be cruel to demand that she add to that creative task the routine drudgery of office or factory.

A minimum of three babies, and probably four, on the average, to every strong, fertile woman, is essential to keep the nation at its present strength and to provide for slow, natural increase, and the woman capable of contributing three children or the nation does not atone for her neglect to reproduce by making the pile of material goods a trifle higher.

To bear and give home training to three children will employ a woman fully and strenuously for fifteen or twenty years. From the first pregnancy until the youngest is fourteen, allowing two years between consecutive births, nearly nineteen strenuous years will pass, a full average working lifetime. If the mother married at twenty-five she will be forty-five when the youngest of her little brood is ready for high school; and in a wise family in comfortable circumstances, the mother will, for some years longer, be the valued counsellor, friend and guide of her adolescent young.

If she has done her work conscientiously and skillfully, she has displayed stores of patience, tact, knowledge and resourcefulness that few lawyers or businessmen exhibit. Her own personality has been developed to its utmost capacity, her body has been rigorously trained, her mind kept alert, her character purified. And her contribution to the real wealth of the land has been immeasurably greater than the contribution of a woman doctor or schoolmarm, a female attorney, or a forewoman.

She has made the wealth to which all other wealth is subordinate, for which all other wealth is created. For the only ultimate justification of all material things is that they continue to the maintenance of "healthy happy, bright-eyed human beings." Without women to create in travail those human beings, the rich store of goods that pours from factory and shop, and is loaded on ship and wharf, would be as fantastic a mockery as the epicurean feast offered on his last night of life to the condemned murderer in his cell.



## THE ONTARIO HEALTH OFFICERS' ASSOCIATION

THE fifth annual conference of the Health Officers of Ontario was held at the University of Toronto on the last two days of May. Dr. A. J. Macauley, Medical Officer of Health of Brockville, Vice-President, presided in the absence of the President, Dr. Macpherson of Peterboro, on active service.

The first forenoon of the meeting was taken up in a lengthy and animated discussion of measles following the reading of a paper by Dr. M. B. Whyte, Superintendent of the Isolation Hospital, Toronto, upon "The Quarantine Period for Measles." Dr. A. Dalton Smith, Medical Officer of Health of Mitchell, and Dr. V. A. Hart, Medical Officer of Health (Vespra) Barrie, also presented papers upon "Measles" and "Should the Breadwinner be Quarantined?" The consensus of opinion seemed to be that the present quarantine of three weeks with a sixteen-day exclusion from school following exposure was of too great length. It is generally considered that measles is infective for from three to five days before the rash appears and for not longer than seven days following the rash, perhaps even shorter than seven days, that the exfoliation, third persons and fomites do not carry the disease. Second attacks are quite rare, consequently persons who have had the disease need not be quarantined. Those who have not had the disease should be held under quarantine for two weeks after last exposure. Those who suffer from the disease should be quarantined for seven days after rash appears unless there are discharges or nose bleed.

The discussion of this subject will probably induce the Provincial Board of Health to make some relaxation in the present regulations.

Dr. Fred Adams, Epidemiologist of the Toronto Health Department, read a paper entitled "Some Observations on Typhoid Fever in Toronto," in which he outlined the means taken to produce the much-lessened incidence as well as the death-rate from this disease in the last six years. In 1910 the death-rate from typhoid in Toronto was 40 per 100,000. In 1915 it had reached the phenomenally low rate of 1.9 per 100,000, the lowest rate for any of the large cities of America. The chief factors in this condition of affairs were announced to be chlorination of the water supply, pasteurization of all milk except certified milk, and the campaign against flies and outdoor privies.

The Health Department of Toronto deserves the strongest commendation for its success in abating this preventable disease.

Dr. J. G. Fitzgerald read a short paper upon "Epidemic Cerebro-Spinal Meningitis," giving the marked features of the disease and advising the necessity of its early recognition by means of spinal puncture. The treatment is by repeated puncture and injection of anti-meningitis serum with careful feeding, guarding against relapses and the use in persistent cases of autogenous vaccine.

The occurrence of this disease among the troops has given peculiar advantages to those studying the disease, for the reason that it is diagnosed early and energetically treated. During the past season all the cases among troops in Military District No. 2 have recovered.

At the afternoon session the acting President, Dr. Macauley, gave an interesting address dealing with the value of the free distribution of antitoxin and other

biological products by the Provincial Board of Health. He also referred to the necessity of the prevention of pollution of public water supplies, and described how his own town of Brockville was proceeding in the direction of a safe water supply.

The feature of the session was a paper by Dr. W. H. Park, Director of the Public Health Laboratories of New York City. Dr. Park has a charming personality and is well-known to public health and medical men as an advanced authority on diphtheria, upon the diagnosis and treatment of which his paper treated.

Dr. Park advised the use of diphtheria antitoxin in large doses. He showed by comparison of results that the intravenous use of antitoxin was much more effective than either the intramuscular or the subcutaneous. In ordinary cases in the child he gives three to five thousand units intravenously. In severe cases five to fifteen thousand units with correspondingly large doses in the adult. Laryngeal cases require early and large dosage.

Dr. G. R. Cruickshank, Medical Officer of Health of Windsor, read an original and interesting paper upon the subject of "Adenoids and Tonsils," advancing reasons for the belief that these organs are responsible for a great deal of infection in early life.

Following a free discussion of this subject by Doctors Hill, Varden and Dewar, Dr. F. A. Dales, Medical Officer of Health, read a paper entitled "Suggestions for Improvement of Association Meetings," citing the following problems for discussion, viz.:

- (1) Are our quarantine methods satisfactory?
- (2) What changes if any are necessary?
- (3) What are the reasons for such changes?
- (4) Should there be separate sections to discuss health matters affecting cities and towns and for rural communities?
- (5) Salary of health officers.
- (6) Payment for reports of births and deaths.

In regard to the latter it came out in discussion that the reporting of births and deaths was a duty the physician owed to the state, and that while there seemed to be some ground for the question of pay-

ment for reports of notifiable diseases the physician should have sufficient interest in his patient's baby to notify its birth.

A paper on "Deductions of a New Ontario Medical Officer of Health," by Dr. Edgar Brandon, Medical Officer of Health, North Bay, gave an insight into the necessities and difficulties of Health Officers in the newer and rapidly growing towns of the province where the influx of foreigners and varied elements make that officer's task no light one.

The public meeting held in Convocation Hall in the evening was largely attended. A most interesting and instructive lecture upon Sanitation in Serbia was given by Major W. D. Sharpe, who served as surgeon with the British Naval Hospital in Belgrade in the first year of the great war. The lecture was illustrated by a large number of slides. He was followed by Capt. Ruggles George, A. M. C., who gave a most interesting story of the first contingent illustrated by slides which carried the troops through Valcartier Camp, Salisbury, and for some months in Flanders. Capt. George certainly made good use of his spare time and powers of observation while on active service.

The second day's proceedings were begun by an excellent paper upon "Auxiliary Aids in Public Health Work," by Dr. H. W. Hill, Medical Officer of Health, London. In this paper Dr. Hill discussed the various means whereby public health measures may be advanced, laying particular stress upon publicity of public health education by means of lectures, leaflets, moving pictures, health exhibits, newspaper propaganda, etc., etc. The matter received a thorough discussion, among those contributing being Dr. Murphy of Minnesota, Dr. Hastings, Dr. Cruickshank and many others.

Dr. P. J. Moloney, District Officer of Health, read a splendid paper upon "Rural Sanitation," and F. A. Dallyn, Esq., the Provincial Sanitary Engineer, read a portion of an exhaustive paper upon "Methods of Collection and Disposal of Domestic Wastes in Small Municipalities." These papers have very great value and when they appear in the journals will be read with great interest.

The morning session was concluded by a paper upon "The Treatment of Sewage



by Activated Sludge," read by T. Chalkley Hatton, Chief Engineer of the Milwaukee Sewage Commission. This paper, which will appear in the Public Health and other journals, should be carefully studied by medical and other municipal officers as it seems to indicate a comparatively cheap and most effective treatment of one of the greatest problems, viz., sludge treatment, in the disposal of sewage. Mr. Hatton has contributed extensive experiments in sewage treatment and is an Engineer of repute in the United States. His remarks were listened to with more than ordinary interest.

Dr. H. Logan, Medical Officer of Health of Niagara Falls, gave a paper on the "Prevention of Tuberculosis in Children." This was discussed by Drs. Alan Brown, Kidd and Hastings.

Dr. J. S. Nelson, of Westboro, read a paper on "Water Supply and Sewage Disposal for Suburban Residences," and E. C. Henderson, Esq., of London, described the forms used by him in keeping records of communicable diseases.

This meeting was perhaps the best in point of papers and discussions yet held by the Association. It is intended to hold the next meeting in Toronto on the last Tuesday and Wednesday of May, 1917.

The officers elected were: Dr. A. J. Macauley, President; Dr. T. W. Vardon, Vice-

President; Dr. J. W. S. McCullough, Secretary.

Committee on papers and arrangements: The officers-elect and Dr. W. A. Crain, Crysler; Dr. W. McBain, Rainy River; Dr. J. A. Roberts, Hamilton.

The next Congress of the Canadian Public Health Association will be held September 12, 13 and 14, in Quebec city. At the same time the "Sanitary Services of the Province of Quebec" and the Canadian Association for the Prevention of Tuberculosis will meet. The City of Quebec has already made a liberal donation towards the expenses of the meeting, and assure any further support which may be needed. Dr. J. D. Page is ably supported by an excellent local committee and a splendid programme intermixed with delightful outings and entertainments in and around dear old Quebec is already arranged for.

The recent meeting of the Ontario Medical Association, the largest yet, is an indication of what can be done, war or no war. Help keep "the home fires burning" by making your arrangements early to be present. Write to Dr. Page, signifying your intention at once, as every letter will inspire even greater efforts to make this the banner meeting of the Association.

## FIFTH ANNUAL CONGRESS CANADIAN PUBLIC HEALTH ASSOCIATION, CITY OF QUEBEC, SEPT. 13-14, 1916.

### *Preliminary Announcement.*

At the 1915 Congress of the Canadian Public Health Association, held in Toronto, it had been decided to accept an invitation from the City of Quebec to hold there the next annual Congress of the Association.

It was expected then that the war would probably be over and that a good number of the active members of the Association, now at the front, would have returned home.

As the actual prospects of the end of the war are very problematic, the Execu-

tive had to consider whether it would be advisable or not to postpone the Congress.

Having carefully considered the whole matter, the Executive came to the conclusion that the Canadian Public Health Association should take advantage of adverse circumstances to have a *Preparedness* meeting and direct its efforts and energies towards the study of the various Canadian public health problems whose solution will become so imperative after the end of the war, such as, for instance, the important problems of immigration, care of the wounded soldiers, etc., etc.

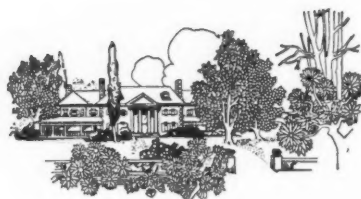
It has been arranged to have at the same time, in the old city of Quôbec, the annual meeting of the Canadian Association for the Prevention of Tuberculosis, and also the annual Congress of the Sanitary Services of the Province of Quebec.

An elaborate programme for the coming joint meeting of each of these important Associations is now being prepared and will be published as soon as completed.

So far as the Canadian Public Health Association is concerned the main features of the programme will be: One session devoted to Child Welfare; a symposium on Immigration; a paper by Dr. M. Steele, M.P., "A Dominion Department of Health"; "Economic value of Preventive

Medicine," by Ex-Controller McCarthy, Toronto; "The Returned Soldier and His Problems," by Dr. Thompson, M.P. for Yukon and Medical Officer to the Military Hospitals Commission, etc.

Although the various Boards of Health, Provincial and Municipal, have had to reduce their expense, to a certain limit, owing to conditions, the Canadian Public Health Association considers that the Provincial and Municipal authorities would make a *safe investment* if they sent delegates to the Congress with a view to arouse more interest among the leading classes and thus promote the diffusion of practical knowledge in matters of hygiene in the masses generally.



# PUBLIC WELFARE

## THE MYTHUS

The modern creed has now taken in our thought much the same place as that given to the ancient myth. Both have become classics of historic interest, but no mythus holds in detail the credence of any large number of the people.

Yet we all need to picture in some mythus the great verities of life and religion. We all need the inspiring touch of some divine human personality. None of us is sufficient to himself. All of us are sufficient as brothers and comrades, the children of one Universal Love. We all need to be reminded that down the tracks of our own being must come all effective reinforcements ever derived from friend or lover, Saviour or Deity. Those tracks have their source in God, however or wherever they first impinge upon our own consciousness.

God is one. Humanity is one. God and Humanity are one. These are the greatest truths the mind has ever conceived, the mightiest fortifications faith has ever known. The divine-human hero may inspire us to nobleness and great effort, but neither he nor our faith in him can purchase for us that obedience to the clarions of Love and the trumpets of the Light that gives us our god-like magnanimity, our great peace, or our immeasurable power.

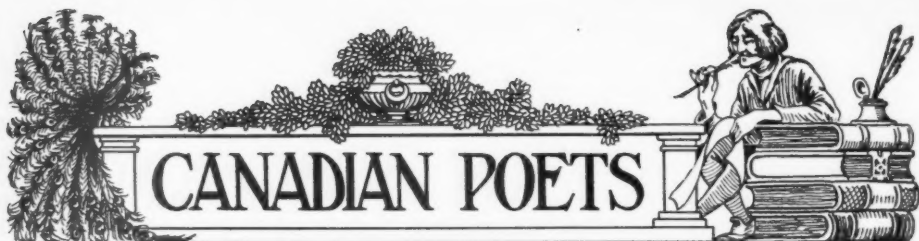
Our noblest aspiration is to express the divine in our daily lives. This is the larger thought of incarnation which looks forward to the Christed race, the divine human society.

The common religious experience of the world, the yearning for the music of the infinite Light, the craving for the joy of the perfect Love, and submission to the fate which befalls as being the will of the great Love Spirit—all that constitutes the substances of true religion, can never be quite drowned by the strange wild music of sects and societies. The sum of all religion may be condensed into one phrase: *Consciousness of oneness with all being and the realization that all being is one.*

The best way to see God is to look into the eyes of a loved one. The best way to find peace is to live a brave true life in which no adventure is too hazardous if only it bring the vision of a reflected glory into the face you see when you look into your own mirror. In the words of Ella Wheeler Wilcox:

“So many gods, so many creeds,  
So many ways that wind and wind,  
When just the art of being kind  
Is all this old world needs.”

—Albert D. Watson.



XXVIII



MARIAN OSBORNE

*These poems are all graceful and melodious. . . . The author tries many metres, both regular and irregular, . . . they are well controlled and lend variety to her muse. For the most part the verses are of love and contemplative moods. . . . The author's gift of dignified and harmonious verse is at its best in the Sonnets; and there is a life given briefly and illuminatingly in 'The Professor's Story,' a little poem in the manner of Browning.*

—The Times, London, Eng

*A collection of poems of a high order. . . . They will be appreciated by all true lovers of poetry. Mrs. Osborne proves herself skilled with various measures. The first of her sonnets is entitled, 'William Osler':—*

*'The man whose simple human art  
Is to bestow, with generous thought and free,  
On fellow-man, his ever-welcome guest,  
The golden treasures of his mind and heart,  
Of ancient lore, and life's philosophy.'*

—Canada, London, England.

MRS. OSBORNE'S mother was a sister of the late Rev. Featherston Osler, M.A., whose sons have won such high distinction, and her father was the late George Grant Francis, of Wales.

Marian Francis was born in the city of Montreal, and was educated at Hellmuth College and at the Collegiate Institute, London, Ontario, and at Trinity College, Toronto. At the age of seventeen she married Mr. Charles Lambert Bath, and lived

in Wales for the ensuing five years, until her husband's death. Of this marriage there are two children, a son, who is in the Royal Flying Corps, and a daughter.

In 1902, she married Mr. H. C. Osborne, M.A., barrister and member of the Toronto Stock Exchange—now Lieutenant-Colonel, attached to the Headquarters Staff, 2nd Division, Ontario.

This promising author has inherited literary talent from both grandfathers—her mother's father particularly having been a noted writer, in his day, on scientific subjects pertaining to medicine. In this

connection it is interesting to remember that her cousin, Sir William Osler, as a writer of medical works, has a world-wide reputation.

Mrs. Osborne is also noted in Toronto for her skill in sports, having recently won the championship in fencing, and in ornamental swimming.

Since the publication in England, in 1914, of her book of verse, entitled *Poems*, she has written "The Song of Israfel," which appeared in *The University Magazine*, and other poems of merit, and has been occupied in the writing of a novel.



### LOVE'S ENCHANTMENT

As when two children, hand clasped fast  
in hand,  
Explore the dimness of a fairy bower  
In tremulous encroachment, each one fanned  
To ardour by his playmate's fancied  
power;  
Then see with wondering eyes the thing  
they sought,  
Half feared, half hoped for, suddenly in  
view,  
So we on tip-toe came, and dear Love  
wrought  
Enchantments for us, long before we knew  
Each other's heart; then led us gaily  
o'er  
The flower-starred meadows, onward,  
eagerly,  
Until we reached at length the open door  
Of his domain—for thus it was to be;  
There in one brimming kiss soul cried to  
soul  
And found completion 'neath Love's  
aureole.



### LOVE'S GIFTS

Belovéd, can I make return to thee  
For all the gifts which thy rich heart doth  
hold,  
Gifts that have turned my life's gloom into  
gold  
And opened wisdom's door with magic key.  
My eyes enchanted see love's mystery,  
And though I fear, yet would I fain be  
bold,

For thy voice thrills on ears no longer cold  
And murmurs wondrous music, tenderly.  
And though my hands hold naught, yet  
would I part  
The curtains of my soul to give thee bliss,  
Answer thee in the throbbing of my heart  
And soothe thy fevered lips with one deep  
kiss.  
Ah! let no shadow fall our souls athwart,  
For life holds nothing greater, love—than  
this.



### LOVE'S ANGUISH

Shall I with lethal draughts drowse every  
thought  
And let the days pass by with silent  
tread;—  
Dream that the vanished hour I long have  
sought  
Is once more mine, and you no longer  
dead?  
How shall I grasp the skirts of happy  
chance  
And calm my spirit in adventurous ways,  
Like bold Don Quixote hold aloft my lance  
Against the world without thy meed of  
praise?  
How can I live through long discordant  
days,  
How cheat despair, or speed Time's lag-  
ging feet,  
Since I have lost the fragrance of love's  
ways  
That turned life's winter into spring-time  
sweet?  
Come to me, Death, come, ere it be too late;  
Thy kiss alone can draw the sting of Fate.



## DESPAIR

The darkness of the night bewildering  
Falls on a world of chaos, and alone  
I lie, and listen for the single string  
Of Hope, with strained ears, but hear no  
moan

Nor any sound, save only the dull beat  
Of my starved heart, that totters on the  
brink

Of abjectness, reason dethroned, her seat  
Usurped by folly. Dear God! let me sink  
Forever out of sight in nothingness,  
As crazed stars fall from heaven. Woe is  
me!

Is death too merciful for my distress?  
Or does my pain mean nothing unto Thee?  
Life's stony road I've suffered passing well,  
Now it's lone sign-post points to my soul's  
hell.



## IF I WERE FAIR

If only I were fair,  
Or had some charm to bind  
In tender loving ways  
The passing of the days,  
Life would seem less unkind  
Less hard at times to bear,  
If I were only fair.

If only I were fair  
And had blest Beauty's dower,  
I should hear flutterings  
Of Love's mysterious wings  
And feel his kisses shower  
On lips and brow and hair,  
If I were only fair.

If only I were fair,  
A child, whose heart beat free,  
Would lay its cheek on mine,  
Our arms would intertwine,  
Sweetly, caressingly—  
A child that I might bear,  
If I were only fair.

If only I were fair,  
As I passed down the street  
Some weary waiting eyes  
Might smile in glad surprise,  
As though the sun to greet.  
How I could banish care,  
If I were only fair!

If only I were fair,  
I would be generous too;  
In my love-laden eyes  
Forgiving tears would rise.  
And, finding one man true,  
I might then all things dare,  
If I were only fair.



## THE SONG OF ISRAFEL

"And the angel Israfil, whose heart-strings are  
a lute, and who has the sweetest voice of all  
God's creatures."—Koran.

Fair Israfil, the sweetest singer of Heaven,  
Shook back his burning curls, and from his  
seven

Stringed lute swept an impassioned prayer  
So full of yearning that the very air  
Celestial seemed surcharged with pleading  
love.

Importunate it throbbed and swelled above  
Each diamond star-lit crevice of the skies  
That oped to hearken, and from shimmer-  
ing eyes

Let down their tear-spun rainbows for the  
song.

Eager it sped, and trembling pulsed along  
Craving a shelter and a sanctuary  
To weave anew on earth Heaven's harmony.

The dying sun had laid his hand of splen-  
dour

Upon the watching lake. Burning, yet  
tender,

His parting kiss enraptured all the night.  
A mystic barque seemed in the golden light  
Like some pale ghostly moth, that flies  
away

With fluttering wings out-drooped from  
circling day.

Onward she came, borne by the music's  
breath,

Unearthly as an image after death.  
Rhythmic she swooned and dreamed,  
And ever idly seemed

To float, as lilies float upon a stream  
Whose slackened pulses halt awhile to  
dream.

Then to the soul of those whose eager ears  
Were not clay-sealed, came music born of  
tears,

Far winged memories,  
Angelic harmonies,

Haunting as dear dead loves for which men  
mourn,

Sweet as remembered joys to hearts forlorn.  
The melody was fraught with dreams of  
Spring

Poured from uplifted throats of birds who  
sing

In silvery ecstasy of lover's sighs  
And of the panted darkness in love's eyes,  
While over all the azure vaulted height  
Of heaven circled a world's delight.

The silences made music. The still air  
Breathed incense-laden consecrated prayer,  
The grave and cowlèd Night knelt, listen-  
ing,

And hushed the restless winds, that whis-  
pering,

Creep on the borderland of sleep.  
Stilled were earth's murmurings deep.

The garrulous waves ceased playing by the  
shore

In bubbling laughter, and the leaves for-  
bore

Their mirthful dancing, while the rustling  
grass

Sighed, and was silent, lest the song should  
pass.

The chords majestic swept the soul. Unrest  
Was stilled to peace in fevered hearts dis-  
tressed.

Wearied of alien ears, and solitude,

The deathless strain soared upwards, to  
the nude

And silvery sentinel of Paradise,  
The patient Moon, that watches o'er the  
skies.

She turned the song to tears of gentle rain  
That washed the earth in loveliness, and  
Pain

Which like a cold and cruel snake lies  
curled

In the grim arms of Night, himself un-  
furled

And sought a refuge in the depths of Hell.  
But even there, these tears of Israfel

Found the sad eyes of those whom hope  
had fled

And as they wept, . . . so were they com-  
forted.



## Art and Artists in Canada

By Katherine Hale

THE Heliconian Club of Toronto has recently had on exhibition one of the most interesting collections of amateur photographs that it is possible to imagine. Indeed, it seems to me that even in these days of advanced photography this collection is in many ways unique. It is

No art seems to me to have developed more slowly in a sense of values than that of photography. It is amazing how few photographs arrive at anything more than the baldest, most uninteresting, in many cases crude representation of the sitter. So called artistic photography generally depends



ELIZABETH A. MCGILLIVRAY KNOWLES

the work of Mr. Charles G. Ashley and Mr. James B. Crippen, two young Americans who have for some years lived in Toronto. Engaged in more or less usual lines of business activity, they keep photography as a pastime and hobby.

Photography with these two friends is more than a mere hobby, it is an art, and they care not how much time and trouble they spend on its perfection. They have certain theories relative to the effects they want to make, and they carry them out regardless of conventional methods.

on make-up. I have been pencilled of eyebrow, shadowed, powdered, and even painted by a well-meaning photographer to get "effects", he being apparently unaware that the only way to arrive at good results is by the careful manipulation of light and shadow. Then, too, the camera used for professional purposes is usually the last instrument by which to arrive at artistic effects. The anastigmat lens is so perfect that it produces over-much detail, so that the real sitter is lost.

When you see a collection of the photographs of Mr. Ashley and Mr. Crippen your first thought is, how fortunate they have been in their subjects. And indeed, in some cases they have, but where the contrary is true there is the same charm of pose and treatment, and such a careful disposition of lights that the very kindest and best characteristics of the subject are emphasized—those for which he or she would care most to be recognized.

We all know how undue detail spoils most things;—a room, a story, a picture, as the case may be. Even a graceful, easy grove of trees in the summer of 1916 can be made to look positively prim and old fashioned

art—given patience and technique to work out this imagination.

Do you remember the story told of Dante Gabriel Rossetti, who one day paid a visit to a celebrated oculist who was supposed to make "magic glasses". He wanted spectacles to correct a slight dissimilarity between his right eye and the left. "I shall be very curious to see whether perfect eyes help or hurt my art," he said. "Each of us painters sees life in his own way, and beauty with certain peculiarities. It would be curious wouldn't it, if talent came from difference between one's eyes? Perhaps if I had had correct eyes I should never have been the artist I am. I mean that I might possibly



when photographed by an extremely correct lens, or etched with a finicky, all-inclusive pen. So a pretty woman can be left merely pretty—and deadly uninteresting—with every emphatic detail of her exceeding prettiness, carefully emphasized by a clear cut photograph, while a plain woman can be made as interesting as she really is in life by taking thought for her characteristics and by catching that unique play of animation, emotion, or delightful repose, as the case may be, which singles her from all others.

It is like story writing. If one can seize a characteristic which is magnetic, the telling of a story is easy. So also the making of a photograph. Imagination, the magic key, alone opens the little door on success in any

have been contented with what I saw. But as my eyes are imperfect I have tried to see things with my soul, and so invented looks and gestures that the real world could never give."

And indeed when one remembers the women that Rossetti has left us, the swan-like throats, the heavy-lidded eyes, the other world air, one feels anew something of his eternal and insatiable desire.

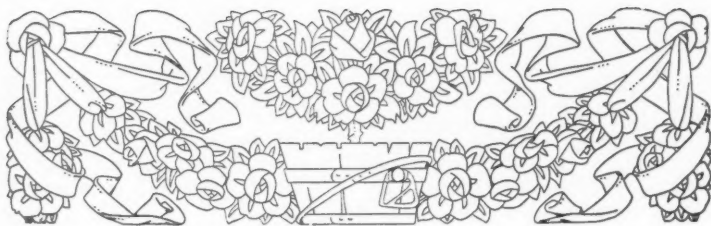
So the camera with an "uncorrected lens", as Mr. Ashley puts it, the camera that optically would not be considered perfect, plays its part in the production of these exquisite photographs.

I have studied the collection, of which one is reproduced in this article and another in "Canadian Poets", and feel that the por-

traits are excellent likenesses in point of the truth of feature. But occasionally a something which is psychological appears, the sitter's spirit creeps in and demands attention, and as with so many famous portraits in older lands, especially those, I think, of Mr. G. F. Watts, we have a likeness—and something more. The study of the well-known artist, Mrs. F. McGillivray Knowles shows this, also that of Mrs. H. C. Osborne,

while the landscapes are imbued with the same extraordinary atmosphere. They are like etherealized engravings—and yet—the product of an ordinary camera on an ordinary July day in the Valley of the Humber near Toronto.

So can a hobby become an art, by that devotion to it, and the long patience which alone brings such exquisite results.







## CORRESPONDENCE

Extracts from a letter from a Toronto Nurse who went with the Queen's University Hospital Unit. Reprinted from *The Canadian Nurse*, June, 1916.

I WISH you were with me for a little while this morning. It is 8.30 a.m., and I don't go on duty until one o'clock. The sea is beautiful. It is just shimmering in sunshine as far as I can see. There are some very pleasant walks along the cliffs and through the country about here. We could walk along the cliffs and through some pretty lanes to Broadstairs—a beautiful spot, as you know—famous in Dicken's stories. Bleak House is the most outstanding house there. You can see it out and above all the other buildings. Oh, we could have a lovely time. Yesterday though, we had a wonderful time. Three of us decided to go to Canterbury, so our head nurses being good sports, saw to it that we got off duty for our p.m.'s at 11.30 a.m., and the matron's assistant had the ambulance call for us to take us to the station, and we were in Canterbury by one o'clock. Capt. Carmichael, brother of one of the girls in the party, met us at the Fleur de Lis Hotel, and after luncheon we went straight to the Cathedral. It was wonderful, and parts most beautiful and parts awful. England seems so full of tombs and beheading blocks, and axes and relics of murders. It quite makes your blood chill, and yet these scenes are set in such marvellous surroundings. Among other things there was the small, flat stone in the pavement floor marking the spot where Thomas Becket was murdered. I have a picture of it and of the actual door he passed through just previously. It is hard to believe that the works of men's hands can stand so long. All the most interesting and valuable effigies here, as elsewhere throughout England, are now covered with sand bags for fear of air raids. After we had seen all through Canterbury Cathedral we went to see the ruins of St. Augustine's Abbey and the College. It is very much older than Canterbury, but the Abbey has fallen to decay, but you can see how immense it has been. I enjoyed the ruins more than the Cathedral, I believe. Then we went to Westgate tower and climbed up and up around and around, to the top, from where we could gaze all over the city and surrounding country. In the rooms we saw a lot of horrible iron things where people used to be punished. The window where heads were thrust out on a gibbet after execution, and so on. On the main street of Canterbury is the 'House of Agnes' where David Copperfield went when he ran away as a small boy. We certainly live in 'Dickens Land' here. I used to think his characters were over-drawn and exaggerated, but I know now that they were not. We see some of them every day.

"Now, I suppose you would like to hear just a little bit about our hospital and work. As you know long ere this, our unit was broken up as soon as we landed in London, like every unit that ever came over has been (except the Ontario Government Hospital). I hear it has landed, and if the hospital is ready for them I suppose they will proceed to it—staff intact. Anyway, twenty of us went to Moore Barracks Shorncliffe, ten to Taplow, some to Folkestone, and nine here. On our arrival we were met by one of the Canadian Red Cross Ambulances and whirled away up to the top of the cliffs where we found our residence—a huge summer boarding house taken over for our use just the day before. Of course there was confusion and dark-

ness to deal with. A flashlight is a necessity here at all times, but this night seemed the worst. We had our carry-alls and had to tug them up about ten flights of stairs, and oh! weren't we the scared lonesome creatures. We didn't like the work at first either. It seemed so foolish to be stuck here chasing orderlies and batmen around seeing they kept things clean and didn't shirk, when we were needed so badly further on, but it gradually sank in upon us that we were doing more than that. There really is a lot of work to be done for the men who are on the verge of convalescing. The nervous cases are dreadful and have to be handled right. I have so many rheumatic cases and bad knees. On the third floor they are awfully busy with surgical cases. So after all since we are used to things we have become very happy and contented for the time. We are glad to be here for a time and hope after a while, to go to France. There is no hope of Egypt now, of course. The hospital is really a huge hotel and has been a beautiful one. It has beautiful walks and elegant appointments and makes a fine hospital. There are six hundred patients, a staff of about twenty officers, many N.C.O's, boy scouts, etc., a large recreation room and theatre hall, billiard room, X-ray room, high frequency, heat, massage and electricity departments, a dentist, two operating rooms, and in fact everything you can think of, although in some ways the equipment is far from perfect, since this is still a new hospital. It was opened about December 1, I think. There are thirty-five sisters, from all over. Some French-Canadian, some who have served since the beginning of the war and have been all over the war zone, and some who have just arrived from Canada (Laval unit).

"Now, my dear, I must get ready for church. We go to service at Chatham House, where an army chaplain holds services for Canadians. About 200 of our men are able to go, and any sisters who are off duty go also. Chatham House is a large college taken over for convalescent men and for staff officers. It is a lovely place, next to Townley Castle, where Queen Victoria went to school. Canadians are taking it over, too, and we hope to have lawn tennis, etc., there."

Sisters Quarters.

My Dear Sister—

I went to Buckingham Palace on Wednesday and it was the day of my life. I'll try and tell you about it. We, Miss O. and I, were driven up in a car with two special constables who were sent down to take charge of the convoy. The men all went up in motor busses, 202 from this camp. The busses kept on breaking down, so our progress was slow (we had to lead and keep them in sight), and we arrived at 2.40. We went straight into a huge marquee for tea. It was most beautifully got up—looked like a large hall—hundreds of tables with lovely flowers and laden with good things to eat. Not the usual treat cakes, but the kind of things one would find at a party among ourselves—silver tea-pots, etc.

We all, men included, had proper invitation cards—I'll show you mine some day.

After we had all sat down—(Oh, I forgot! there were ladies waiting on us)—two to each table, all titled people. We had Lady Lansdowne and Lady Stanley. Next to us was Princess Arthur of Connaught, etc. Any amount of officers, naval and military—Sir Lister Kay, Sir Derrick Keppell, and so on. Then the King and Queen with seven other royalties came in, Princess Christian, Duchess of Argyle, Princess Mary, Prince Albert, Queen Alexandra, Princess Victoria, the Queen of Portugal, Princess Alice.

It was all quite informal. We had to keep our seats. The King and Queen came down to our table and talked to the men. The Queen gave the sweetest of smiles and bows, all to myself. She looked very charming dressed in dark blue with lovely diamonds. The King had a naval uniform on—he was awfully nice too—talked to the men, asking if they were comfortable, etc. One man stood up, but he told him to sit down. They went about to each table, and so did the all others—Princess Christian shook hands with me, and the Duchess of Argyle talked to me. Queen Alexandra was wonderful, talking to everyone. The men started getting autographs and Queen Alexandra was kept hard at it. I summoned up courage, after all the men had got theirs, to ask her to sign my card. I curtsied and she

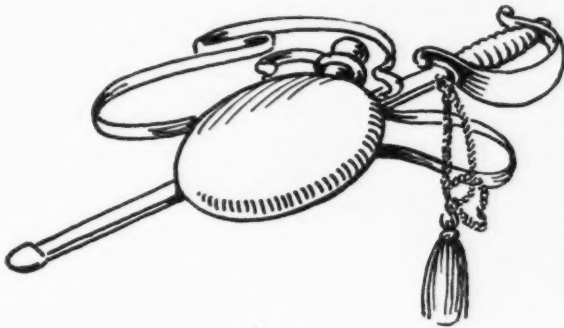
looked up with a charming smile, saying, "Of course I will"—signed it—I curtsied again and went off to the entertainment, which was splendid. The Riding School was turned into a theatre, awfully well arranged, with a splendid stage, orchestra, drop curtain of black stuff with strings of roses—so pretty. We each had a programme with photos of the King and Queen. All the Royal people came in, in a sort of procession, all of us standing of course, and as soon as they were seated we sang the National Anthem; then, "Here's a Health unto His Majesty," all joining in the chorus.

The first part of the programme was songs by the Temple Choir, and the Australian and Canadian National songs. The men yelled the choruses. Then followed a sort of music hall performance. Awfully good and very funny. I got helpless with laughter at some of them. Then three cheers for the King and Queen. You should have heard them. It was thrilling. I was proud of them all. There were about 1,000 altogether. Their behavior was splendid. There were over 100 blind men, poor fellows. One had both arms and legs off and blind as well. The Royal party came down again, smiling and bowing to every one. We had to wait till we were told to go. So the men improved the time by getting the Queen of Portugal to sign their cards. One of my Canadian patients seized my card, took it up and got her to sign it and brought it back to me in triumph—so I am lucky. It was a splendid show right through, and must have done a lot of good. Some of the Colonials say they had quite a wrong idea of the Royal family, but now they are as enthusiastic as possible.

I love the soldiers, and the Colonials (forgive the term) best of all.

Yours,

C. B. C.



## The Sanitary Inspectors' Association of Western Canada

President—E. W. J. Hague, Assoc. Roy. San. Inst. Vice-Presidents—Western Ontario, W. E. Stanley, Assoc. Roy. San. Ins.  
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W. J. T. Watt, Cert. Inc. San. Assoc., Scotland; P. B. Tustin, Member Roy. San. Inst.; D. Little, Assoc. Roy. San. Inst.,  
Winnipeg; E. C. Brown, Fellow Highland Agr. Soc., Winnipeg, Sec.-Treas.—Alex. Officer, Cert. Inc. San. Assoc., Scotland.

### HYGIENE IN WINNIPEG IN THE EARLY SEVENTIES

*Read before the Winnipeg Members by E. MARSTON,  
Secretary, Health Dept., Winnipeg, Man.*

WHEN I was asked three years ago to give my recollections of sanitation in the early days of Winnipeg, I had to begin by saying that there wasn't any sanitation here, as we now understand the word. The first chapter of my sanitary recollections would have to be like the celebrated chapter on snakes in the book about Ireland, which chapter read as follows: "There are no snakes in Ireland." There were no sanitary methods worthy of the name in the Red River Settlement out of which the City of Winnipeg has grown. But to speak more accurately, while there were no regular sanitary methods in the sense in which we now understand the term, the two greatest and best sanitary agencies there are now in the world and which do their work independently of human arrangement—and are indeed more often checked and interfered with and seriously obstructed by human arrangements, especially with the growth of crowded quarters in the great centres of population—these two most important of cleansing agencies to which I am referring, namely, sunlight and the wind, had ample space to do their beneficial work. The whole settlement lay open to the sun and wind.

In four years more, a half century will have elapsed since the individual who stands before you, arrived here from the East by way of Chicago and St. Paul. Before coming out to this newly formed province of Manitoba, which with all the region westward of the Rockies had just been added to the Dominion, I do not remember that I had heard Horace Greeley's celebrated advice, "Young man, go West." But that was what I had decided to do. In the forty-six years that have passed since the party of which I

was a member, landed from the boat and pitched our camp at a place on the bank of the Red River, not far, I should say, from what is now the foot of James Street, the little Red River Settlement, which I then saw for the first time has grown to be a great and populous City. From our camp as we looked, northward, westward and southward, we saw the prairie stretching away to the horizon, like the sea; and to carry the comparison further, I may say that the little group of houses mainly along what is now Main Street in the vicinity of Portage Ave., which constituted the Red River Settlement out of which the City of Winnipeg has grown, might be likened to a group of boats anchored and beyond them, as we looked from our camp, Fort Garry stood out on the level prairie like a war ship on the ocean, with the British flag flying from its flag staff. Only a few months before my arrival the Red River expedition under Col. Wolseley, afterwards Field Marshal Lord Wolseley, had preceded me by way of the fur traders' route from Fort William, via the Lake of the Woods, Winnipeg River, Lake Winnipeg and the Red River; and peace and good order having been established, had departed again.

It was in the fall of 1870, as I have said, that I arrived here. The German siege guns were then thundering around Paris, and the thought of the present terrible conflict which is now convulsing the world and the true origin of which is to be traced back to that war of 1870, was of all possible things that the future could have held in store, the very last, which I or any other man in 1870 would have dreamt of looking forward to. Wonderful as has been the development of Winnipeg and Western Canada, the greatest thing of all is the manner in

which our City and our Province of Manitoba with the rest of the Dominion and the other Overseas Dominions and the whole Empire, have rallied to the defense of human freedom.

When I arrived the population here was about 300. My stay in the future City of Winnipeg after my first arrival was very brief, in fact a few days only, as I had engaged to go with a survey party to the south-eastern part of the new-fledged Province of Manitoba. I returned to Winnipeg a year later in the fall of 1871 to find the population increased to six or seven hundred. When I look upon the palatial hotels of our City today and think of the hotel accommodation in the fall of 1871, I find that language fails me, in expressing my views of the contrast. To say that the hotel accommodation in 1871 was decidedly limited, is to state the matter in exceedingly moderate terms indeed. There were only two or three hostleries for the accommodation of travellers and their arrangements were primitive in every respect. The discomforts were increased by the overcrowding, resulting from the gradual inflow of new comers, surveyors and their working staffs, so that not even Sir John Falstaff himself with all his readiness to make himself comfortable could have been able to say truthfully, "I will take mine ease in mine inn."

The winter set in very severely and with the overcrowding, the bad arrangements and the absence of any proper sanitation, an epidemic of typhoid broke out. At one hotel, the Garratt House, on Portage Avenue East, there were some eighteen or twenty cases. The proprietor to convince me of his inability to take me in, showed me over the house. In some of the rooms there were three or four beds, all occupied by typhoid sufferers. In those days, needless to say, there were neither sewers nor water works. Slops of every description were thrown out of the back door and you can imagine the shocking state of affairs when the hot weather arrived.

In the fall of 1872, two years after my arrival, there was a count made of the population. It showed that on the 1st day of November, 1872, there were 1467 people here. Of this number 1019 were males and 448 females, a disparity which occurred in all Western towns at first, and was due, of course, to the fact that a preponderating number of the new comers were young men and that those who had families came out

alone to secure homes before bringing their families out to this new country.

I have just said that there was no public water supply at that time. Nevertheless there is a photograph in existence, which no doubt some of you may have seen and which is labelled "Winnipeg's first Water Works." The photograph is of old John Irvine, with his Red River cart drawn by an ox and carrying a hogshead full of water. The hotels in those days had their own water carts which hauled water from the Red River and emptied it into barrels without covers at the back doors of the hotels. The other houses in the settlement depended on individuals who made it a business to draw water from the river in the same way; and the water was kept in barrels at the kitchen door of the house in the same unsanitary manner as at the hotels. Old John Irvine was one of the well known figures among the water carriers.

Two years later in 1874 we had another outbreak of typhoid, which was very severe and of which I unfortunately was one of the victims, though I should hardly say "unfortunately," since, as I said when I was giving my recollections three years ago, if I had not been laid on my back by that attack of typhoid I should not now be here this evening giving you these rambling reminiscences of the early days of our City. I had just returned from a journey across the Continent, from the North west angle of the Lake of The Woods to the Rocky Mountains with the International Boundary Commission which set up the boundary pillars half a mile apart the International line between this country and the United States. That Commission was a military body and I was engaged as one of the scouts. Those were days when there were hostile Indians on the plains. Several of my chums among the scouts and myself had signed to join Gen. Custer at Fort Abraham Lincoln to go with him on an expedition against Sitting Bull. Four of us came back to visit from Fort Abraham Lincoln and of the four, three of us took typhoid here. Two of the three died and I survived.

Perhaps I am boring you by introducing all this into what should be a paper on recollections of sanitary conditions in the early days of Winnipeg and of the sanitary progress of our City, but from my own personal point of view, at any rate, you must admit that the absence of sanitary methods which produced that outbreak of typhoid of which I was a partaker, was of very great salutary



importance to me. In all human probability, it saved my life, because if I had not been prevented by that attack of typhoid I undoubtedly would have gone with Custer's expedition, which as you know was entirely wiped out in the famous massacre.

To return, however, from this excursion into the realm of what might have been to my recollections of the realm of what actually was in the Winnipeg of 46 years ago, I must seriously qualify something that I have already said in regard to the part played by fresh air as a sanitary agent in the early decades of our City. It was the custom to make the houses as air tight as possible at the beginning of winter, the ideal aim apparently being as complete a lack of ventilation as could be obtained. No trouble was spared to make the house air tight. All cracks and interstices were closed up with gummed paper. It is a practice which is still altogether too essentially pursued by large sections of our population, the idea being, of course that as fuel is valuable, any warmth that is allowed to escape is a wanton waste. But there is a vast improvement in this regard at the present time contrasted with 46 years ago. Nobody thought then of sleeping with the window open, as so many of us now do, keeping our windows open to some little extent at least, even in very cold weather, while in the summer time, the practice of sleeping in the open air has increased very greatly of recent years with the most beneficial results to health. It is only a few years since the first sleeping porches were seen in Winnipeg. Now they are common. When we saw the first ones, we used to say, "Someone must be suffering from tuberculosis in that house, who is endeavoring to overcome the disease by the fresh air treatment." We never dream of saying such a thing now.

To get back to my recollections however, it was, in 1873, as you know, that Winnipeg was incorporated as a city, and in 1874 the first Mayor and City Council were elected. The population at that time was about 2000. The first sewer was constructed on Main Street in 1875 and I might say that by no means all the buildings along that street were then connected with it. This sewer was constructed from Portage Avenue to Bannatyne and thence to the Red River. It is rectangular in shape and made of oak planks—part of it is still in use and is quite sound.

I might mention as a fact of interest that the first installation of a house water service on modern lines in this part of the world was made in 1876 by Archbishop Tache, who had the water service put into the Palace at St. Boniface, from the Red River, the water being pumped by a donkey engine to a large tank at the top of the house.

The River water was muddy, of course, especially in the spring when the ice plowed up the banks; but then on the other hand, it was of course not contaminated, as it is now. It was necessary to let it stand to clear itself, and every little while you had to have the sediment in the bottom of your water barrels cleaned out.

Early in the history of the City, the civic authorities sunk wells and established public pumps at various street corners. Some of these were standing until four or five years ago. The first City water works system was put in on the Assiniboine River at Armstrong's Point by a private company, which the City afterwards bought out.

The first City health officer was George Kerr. He was succeeded by Dr. Phillips. Among the doctors in the early days whom I might mention were Dr. Codd, Dr. Bird, and the Hon. Dr. O'Donnel, the latter of whom was a member of the first Government of the Province of Manitoba, in fact he was a member of the Legislative Council of Manitoba, a sort of House of Lords with which Manitoba started out on its history. The membership of that body was for life, like that of the Senate at Ottawa; the extraordinary thing about it is that in a year or two after its creation, it abolished itself voluntarily.

To keep to the track of my recollections of my early days, the first outbreak of typhoid which Winnipeg had after incorporation as a city was in 1875. There were several hundreds of cases and many deaths.

In May 1882, there was a bad outbreak of Smallpox. A family by the name of Gingras, from St. Joe, Dakota, brought it to St. Boniface, where, as I remember there were about a score of deaths. One family in St. Norbert named Parisien was entirely wiped out. Another family in the same village, named Chartrand, lost five of its members. The Gingras family aforementioned upon their return to St. Joe, lost four of their number. Among those who died in St. Boniface were Henry Marceillaise, William Corriere, Louis Hebert, a student in the

College, also Rev. Father Forget, the Principal, a Mrs. Larocque, Alex. Kitson and his brother William Kitson. Alex Kitson died from Haemorrhagic Smallpox. Smallpox there was not quarantined and there was no disinfection and you will be surprised to know that hundreds visited the house and viewed the corpse, and many of the visitors, consequently, were infected. Some infection was carried to Gimli and other points. After the damage was done the Provincial Government ordered all its civil servants to be vaccinated, but it was left optional with the citizens. I should also mention that the Smallpox epidemic existed to some extent among the Indians and halfbreeds.

The first Roman Catholic cemetery was situated on Notre Dame Avenue, West, about where Notre Dame Park, now is. The Roman Catholic authorities in charge of cemetery matters, purchased the site of the present St. Mary's cemetery and all the bodies were transferred to the latter place. The disinterments were made during daylight and the bodies conveyed to the new cemetery at night. I do not know what precautions were taken or what disinfectants were used, but I can assure you it was a malodorous job, and the few residents who lived along the route between the old cemetery and the new had great reason to be glad when the transferring was completed.

In 1888 there was an outbreak of Diphtheria, in which I participated. As is perhaps needless to say, the health authorities did not, in those days placard the houses in which there was contagious disease as we do now; nor did they disinfect, as I can remember from my own experience when I had diphtheria.

It was not until only in 1900, when Dr. Douglas was appointed Medical Health Officer, that a vigorous crusade was commenced with the aim and object of securing the installation of sewer connections all over the city; and by the year 1906 some 6,000 outside closets had been done away with, and sewer connections made instead.

I am afraid that I have succeeded in giving you only fragmentary and disconnected recollections of the sanitation of our city in its early years. There has been a steady advance in the introduction of improved methods, until we have now a contrast between our present sanitary methods and the first beginnings of sanitary methods in Winnipeg—like the contrast between the

asphalt streets, electrically lighted, with their street cars, taxicabs and automobiles, on the one hand, and, on the other hand, the old muddy roads and the Red River carts drawn by oxen.

When we consider how constant and wonderful the advance is,—how great the progress which is being made in grappling with all the problems of fighting and preventing disease, and securing purity in the food supplies, and improving all the conditions of life, we can hardly doubt the contrast between the conditions that will prevail forty-six years from now, in 1962, and the conditions prevailing now will be hardly less marked than the contrast between our present advanced methods and the conditions that prevailed forty years ago in the Red River Settlement of 1870, or Fort Garry, as it was also called, where three years later, on the birth of Winnipeg, I became a Winnipegger, and have remained one ever since.

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We are in receipt of a very interesting letter from Mr. F. C. Austin, one of our members now with the A.M.C., "somewhere in Belgium." He describes the first aid treatment given to casualties and the method of sorting and transporting them to the base hospitals. The O.C. trains he describes as marvels of comfort. He comments on the bravery of the boys under treatment, and how he saw the surgeons take out of a man's leg a shell nose complete with detonator, weighing in all 3 lbs.

It is strange to think that so many hundreds of thousands of men who, two years ago, were engaged in peaceful occupations thousands of miles away from the scenes of the present titanic struggle, and who never had the least idea that they would ever be called upon to make such sacrifices as they are now doing, should suddenly find themselves in the midst of such a turmoil. In their few moments of quiet thought it must seem like a dream. Those who survive will not return to us the same men as they went away. They should have a wider and nobler view of life and will make more valuable citizens.

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There are still a few members who have omitted to send their annual subscription. As the Secretary-Treasurer will soon be closing his books for audit, he would like to have all outstanding dues at an early date.

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Lact. Albumen..	9.60
Milk Sugar ....	60.10
Ash .....	7.75
Moisture . ...	1.50
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